An Empirical study on Glass Ceiling in Healthcare Sector with reference to Dakshina Kannada District

Synopsis to be submitted for the award of Ph.D Degree in
Business Administration
Mangalore University
(Under the Faculty of Commerce)

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January 2023

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Introduction

In today's world, women often face many challenges to achieve their career goals or aspirations. Half of the world's population is represented by women and hence half it's potential. They play an important role in the growth of the economy and occupy a significant proportion of the labour force. Although, women had a late start into the professional careers, the proportion of women entering workforce is increasing rapidly when compared to yester years. They have stamped their foot print in almost every field of work. In certain fields, they have a major contribution compared to men. Even in STEM (Science, Technology, Engineering and Mathematics) fields, women have started to place their mark significantly. But regardless of the career path they choose to pursue, the challenges still remain in their way and some occupations bring more challenges compared to the other.

Though this study's primary aim is to discover the existence of Glass ceiling in Healthcare sector towards leadership positions, it is fair to briefly see the effect of Glass ceiling in general to understand the difficulty women face in attaining the leadership positions they well-deserve.

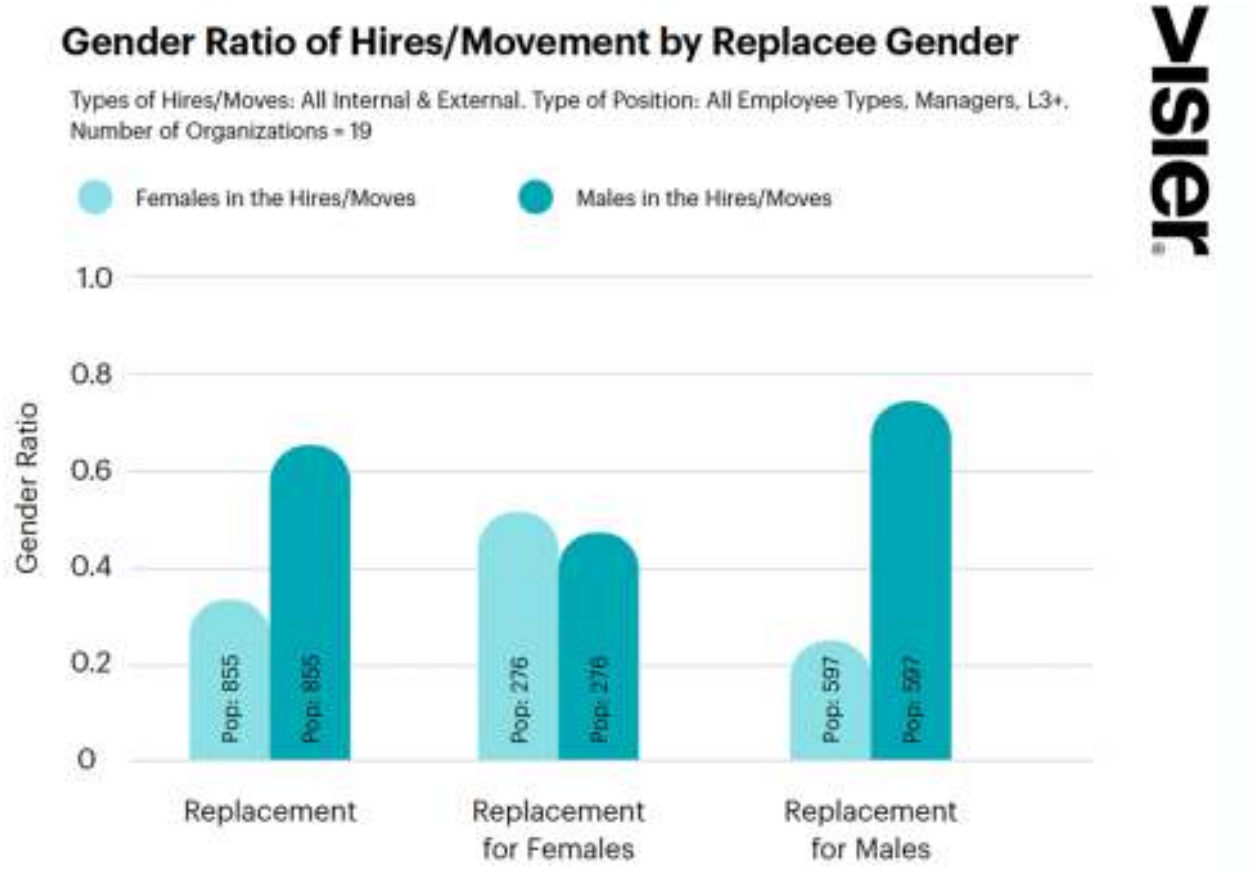


Figure 1 Males often replace men and women in upper management roles across all time ranges from one to two years and up to ten years

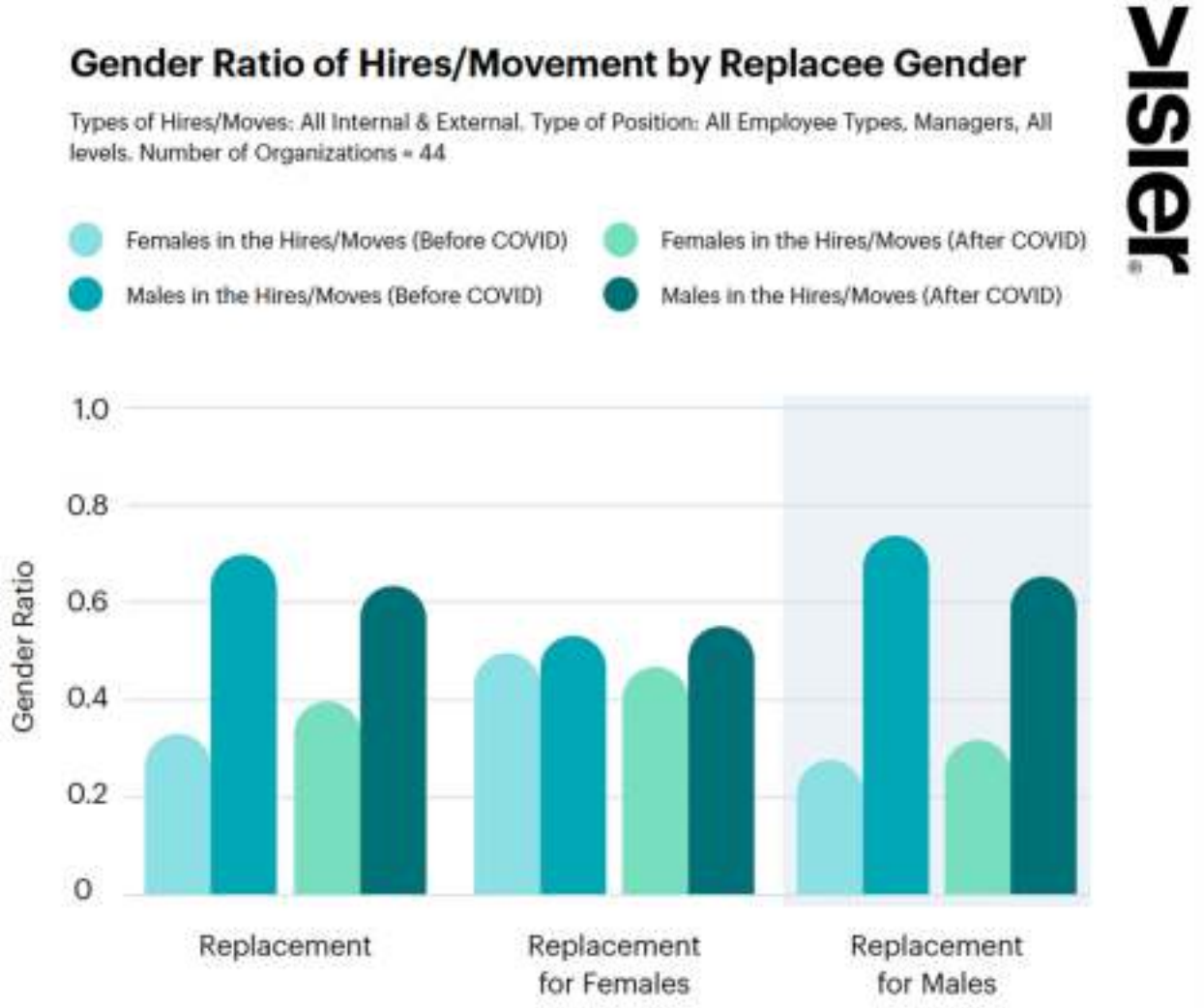

Gender Ratio of Hires/Movement by Replacee Gender
Types of Hires/Moves: All Internal & External. Type of Position: All Employee Types, Managers, All levels. Number of Organizations = 44
Females in the Hires/Moves (Before COVID)
Females in the Hires/Moves (After COVID)
Males in the Hires/Moves (Before COVID)
Males in the Hires/Moves (After COVID)
Gender Ratio
1.0
0.8
0.6
0.4
0.2
0
Replacement
Replacement for Females
Replacement for Males
VISIER

Figure 2 Females more often replace male managers in 2020, compared to 2016-2019

Source: (https://www.visier.com/blog/new-data-on-women-breaking-the-glass-ceiling/)

The above 2 graphs published based on a study conducted by VISIER, a global leader in people analytics shows that in upper management roles, women scarcely succeed men which apparently shows the existence of Glass ceiling despite the fact that organizations still report that they are committed towards Gender diversity.

One of the most influential studies on Gender differences in Personality traits, published in 2001 by pioneering personality researchers Paul Costa, Robert McCrae and Antonio Terracciano, involved over 23,000 men and women from 26 cultures filling out personality questionnaires says that, on average women tend to score higher on Agreeableness. Similar studies conducted in 2008 also yielded the same results. This means that women, on average, are more nurturing, tender-minded, and altruistic more often and to a greater extent than men. For example, women are often found to be more agreeable than men (Feingold, 1994; Costa et al., 2001). This high score in agreeableness also explains why we see more women in roles

like Mid-wives, Home-nurses, Baby-sitters, etc. that demands a lot of caring and nurturing along with it.

Historically, women were regarded to be natural healers especially during the medieval times. The contribution of women in medicine and healing is apparent throughout history to the present day. The healthcare sector is one of the biggest and fastest-growing service industries in the world. Women face many challenges to thrive in male-dominated professions and this holds true in healthcare sector also. This research aims in understanding whether there exists Glass ceiling in healthcare sector and to determine its impact on the career progress of female doctors.

Glass ceiling, though it is a common man's phrase that represents a ceiling made of glass; in the recent years this phrase gained popularity in the professional fields in which it means an invisible barrier that prevents a given demographic from rising beyond a certain level in a hierarchy (Wikipedia). A ceiling in general represents a limit which wouldn't allow one to go further. In the same way, Glass ceiling can be comprised of various types of barriers like individual organizational, social, family, etc. which stands in the way of women professionals reaching executive rank or top positions in their organizations. Though they see the position, well-deserving for the position, competent enough to handle the responsibilities of the position; they seldom reach those positions.

It is observed that though the number of female professionals in healthcare sector is high, they are seldom placed in top positions. They often face career advancement difficulties and remain significantly under-represented in official management roles and specialty areas. While the female workforce is adequate at entry-level, given their technological and professional experience, their career growth slows down beyond certain level. The under-representation of women workers at a higher level and the male dominated society leads to the Glass Ceiling. (Dhariwal, 2020). Accordingly, there are major obstacles and a glass ceiling for women that hinder the career performance of female healthcare managers. (Wiggins, 2016). Hence it is important to identify the root causes for those difficulties so that required measures can be taken to remove the obstacles from the paths of aspiring female medical students and practising doctors. This research contributes towards identifying and breaking the glass ceiling so that the female doctors would be benefitted individually and the healthcare industry would be benefitted collectively.

Conceptual Frame work of Glass Ceiling

Introduction

Globally, a sizable share of the health workforce is made up of women. However, gender disparity caused by the preponderance of women in low-profile positions in the health industry has been a major issue, especially in India. (Karan et al., 2021). In India, there is a severe shortage of female physicians. Only 17% of allopathic doctors and 6% of those practising in rural regions are women, according to a document titled "Human Resources for Health in India." In rural areas, there are 0.5 female allopathic doctors per 10,000 people, compared to 6.5 in metropolitan areas. In India, women occupied 51% of the seats in medical colleges in 2014–15, as opposed to 22,934 men. The increase in the number of women enrolling in Indian medical schools is a positive sign that there will be more female doctors in the future. This has been statistically proved in the last five years where India has produced nearly 4,000 more female doctors than male ones. However, when students graduate, the green signal changes to red rather than yellow. Even though there are more female medical students than male, tragically, none of them choose to become doctors, which contribute to the dearth of female doctors in India. (Ahmad Dar, 2018)

Glass Ceiling

When we hear the word ‘Glass’, we often associate it as an equipment used to see through. Hereto, the term ‘Glass’ in Glass Ceiling represents that women are able to see the elite career positions on the other side through the glass but at the same time, due to the unseen barriers they come across in their career journey; the same glass through which they see such elite positions becomes a Ceiling that stops them from reaching those positions.

Marilyn Loden was the first person to use the term Glass Ceiling during her speech in the year 1978. At the same time the term was coined by Marianne Schriber and Katherine Lawrence. Later in the year 1984, the term was used by Gay Bryant in an Adweek article. The term was later used in a widely cited article in the wall street journal in March 1986 by Carol Hymowitz and Timothy D. Schellhardt.

The United States Federal Glass Ceiling Commission defines glass ceiling as "the unseen, yet unbreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements."The Commission believes that every member of our society should have the opportunity to strive for positions

of responsibility and leadership, regardless of their gender, race or ethnic back- ground. (Johnson, 2005).

Variations and related terms

1. **Sticky Floor:** It refers to women who are trapped in low-wage, low mobility jobs in state and local government.
2. **Brass Ceiling:** It is a term used in male-dominated fields of law enforcement and military where women face the difficulty of climbing up the career ladder.
3. **Glass Cliff:** It is a situation where women are given higher position in leadership roles during the period of crisis or downturn when the chance of failure is high.
4. **Stain Glass Ceiling:** It is a sociological phenomenon used in religious communities where women find it difficult to achieve a role in church leadership like priest, bishop, pastor, rabbi at the level of local assembly that prevent women from rising to any intensity of power.
5. **Bamboo Ceiling:** It is a barrier which restricts Asian and Asian-Americans from reaching important positions within a company or community.
6. **Concrete Ceiling:** Concrete ceiling is also a term used to describe the barrier that blocks qualified people's advancement. Concrete ceiling is harder to break when compared to glass ceiling.
7. **Glass Elevator/Glass Escalator:** Glass Escalator refers to a situation where men reach a higher position in female dominating professions like nursing, teaching etc.
8. **Sticky Ladder:** This is a term used to describe the women's struggle to achieve the top position in the corporate ladder.
9. **Glass Labyrinth:** It refers to a complicated irregular network where women find it difficult to find their way.
10. **Glass Slipper:** This is a term used to describe when women try to match her identity with occupational identity.
11. **Expatriate Glass ceiling:** It refers to a situation where women are prevented from accepting foreign assignments.

Levels and Types of Glass Ceiling Barriers

The Federal Glass Ceiling Commission research identified three levels of barriers

Societal Barriers

The Federal Glass Ceiling Commission of the United States department of labour identified two major societal barriers that cause and reinforce a glass ceiling that is supply barrier and difference barrier. The supply barrier is related to opportunity and achievement. The difference barrier is projected as the conscious and unconscious stereotypes prejudice and bias related to gender and ethnicity.

Internal Business Barriers

The following business-based barriers were identified:

- Outreach and recruitment practices that fail to seek out or recruit women and minorities. Prevailing culture of many businesses is a white male culture and such corporate climates alienate and isolate minorities and women.
- Initial placement and clustering in staff jobs or in highly technical and professional jobs that are not on the career track to the top.
- Lack of mentoring and management training.
- Lack of opportunities for career development, tailored training, and rotational job assignments that are on the revenue-producing side of the business.
- Little or no access to critical developmental assignments such as memberships on highly visible task forces and committees.
- Special or different standards for performance evaluation.
- Biased rating and testing systems.
- Little or no access to informal networks of communication.
- Counterproductive behaviour and harassment by colleagues.

Governmental Barriers

The Federal Glass Ceiling Commission pinpointed three governmental barriers to the elimination of the glass ceiling. They are:

- Lack of vigorous and consistent monitoring and law enforcement
- Weaknesses in the collection of employment-related data

- Inadequate reporting and dissemination of information relevant to glass ceiling issues.

Glass Ceiling in Healthcare Sector

Historically, women have been entrusted with the care of the sick and the disabled and this tradition eventually created what is called a gendered healthcare work atmosphere. (Sexton, Arbor, Harris, & Wainio, 2014).Historically, as in many other countries, it has not been easy for women to practice medicine in India as well. Initially men were appointed by the Indian medical services established in 1858 and it was not until 1883 that women were authorized to enrol. However, women's marginality in medicine was exacerbated by putting them behind curtains or outside doors when classes were solely opened to women. (Forbes, 2006)**.**

The lack of women in senior positions necessarily means that in policy and decision-making processes, their individual and collective views are less likely to be shared. If medical women are not seen to excel in their professions, there is a possibility that young women will not be inspired or encouraged to achieve top medical professions.(Santamaría, Merino, Vinas,& Arrizabalaga, 2009). Accordingly, it is evident from the previous studies that despite substantial rises in the number of women doctors in recent decades, there is still a gender disparity in academic medicine worldwide. Besides, in academic medicine, far fewer women are appointed in highly ranked positions than men. In academia and corporate leadership, this 'leaky pipe' phenomenon is prevalent, but seems to be more serious in clinical medicine. (Han et al., 2018). However, there is a significant gender imbalance in academic medicine, where women are overwhelmingly under-represented in high-level medical professorship, especially full-time professors and deans. There is also a significant shortage of mentoring in medical schools for the female students, which makes women more likely to leave clinical medicine due to feelings of alienation and "not fitting in" (Ward, 2008).

Women are more likely to join specialties that are now perceived as "feminine" conventionally. While, men are likely to join specialties that are generally seen as more serious, demanding and time consuming such as surgery and emergency medicine in particular. This is most likely because women want more flexible hours offered in the specialties listed above, leaving them time for personal or family duties, while men are less likely to select a specialty based on personal or family duties (Davis, 2013).

There are some specialty areas where studies had been undertaken in foreign countries stating the existence of glass ceiling in different departments like Urology, Academic Surgery,

Radiation Oncology, Academic medicine, Neurology/ Neurosurgery, Academic Psychiatry, Gastroenterology, Surgery. In order to remove the disparities incurred by women doctors in these departments, healthcare sector has to take initiatives that provide opportunities for women doctors to advance in their career. Despite an increase in female surgeons, women still lag behind men in terms of academic progression in surgical fields. The reasons for this include few senior female role models, lack of mentoring and issues of work life balance. (Hill et al., 2015)

Qualitative research suggests that women choose surgery because they have successful female and male role models, because of the intellectual and technical challenge and because they feel they have, or have been told they have, "the surgical personality."On the contrary, women do not choose surgery because they perceive it to be too difficult, are not encouraged, have no role models, perceive it to be too time-consuming, feel it is not family-friendly and believe the lifestyle is not controllable.(Debrah A. Wirtzfeld, 2007)

There are three emerging issues that contribute to a reduction in healthcare representation: structural challenges such as recruiting and promotion processes, institutional barriers that promote the continuation of underlying inequalities and the influence of the everyday working atmosphere that does not enable all workers to have an equitable and positive experience. To foster diversity, organizations need to better identify and resolve these main challenges.(Gretchen et al., 2019)

Despite a substantial rise in the proportion of female urologists, income inequalities between men and women in the medical profession are well known and have been recorded in the specialty of urology. Ancillary revenue for male urologists was reportedly greater than female practitioners. A glass ceiling for women urologists may occur, similar to several instances in corporate America. To delineate these differences, more study is needed(Spencer et al., 2016). Neurosurgery has been a male-dominated sector historically. The gross under-representation of women in leadership roles continue, despite improvements in access to training positions and the increased entrance of women into the profession.(Wolfert et al., 2019)

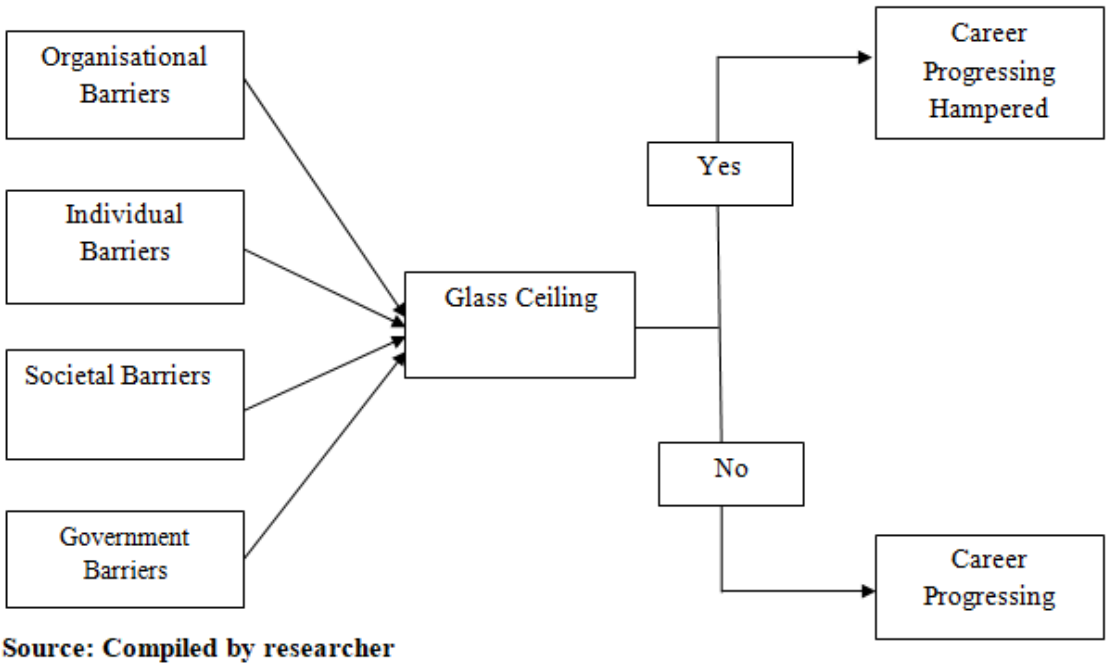
One of the key challenges to women's career progress in the management of their professional association is gender leadership inequality. The gender gap is thought-provoking in leadership, academic medicine and dentistry. Although there has been a considerable increase in women pursuing a profession from a historical viewpoint in medicine and

dentistry, unfortunately, the gender gap in the top managerial and academic ranks still remain relatively unchanged. There is a deep shortage of women in medicine and dentistry who hold leadership and high-rank academic roles. Three key factors that have hampered gender equality in this area are the lack of suitable role models, the absence of peer reinforcement, and implicit discrimination. (Gangwani & Kolokythas, 2019)

Gastroenterology is not only the specialty area where women are paid less than men. As shown by Singh et al, multiple studies have found this to be the case in several other specialties also.GI communities should take on themselves to move gender inequality to the forefront not only through promoting the study of women's concerns, but through seeking realistic ways to draw women to gastroenterology, to explore their clinical needs, and to track their success through clinical practise. Rather than expecting and wishing that women would crack it every day it will be wise to try to eliminate the glass ceiling.(Achkar, 2008)

Conceptual Model

A significant number of articles have been analyzed in order to determine the relationship between the Glass Ceiling and female doctors' career advancement based on the study hypothesis and objectives. This conceptual model was built based on the analysis of papers. Factors contributing to glass ceiling is considered as independent variable. Career progression of female doctors is considered as dependent variable.



Source: Compiled by researcher

Review of Literature

Mcmanus & Sproston, (2016) analysed the career progress of women doctors in UK and found out that only few women seemed to be progressed in medicine, obstetrics, gynaecology and anaesthetics stating little evidence for disproportionate promotion of women in hospital careers which is interpreted as direct or indirect discrimination.

Santamaría et al., (2009) stated in their study in Europe that there is still unresolved discrimination against women in medicine and for this the medical institutions has to take the initiative in promoting both men and women ethically.

Kvaerner et al., (2016) in their cross sectional study assessed the relation between male and female medical leadership and concluded that women reach senior positions of medical leadership with great difficulty when compared to men. Apart from various challenges the study revealed that in Norway medical specialties with high proportions of women have more female leaders.

Bismark et al., (2015) conducted study to know the reasons and remedies for women being underrepresented in medical leadership roles using semi structured interviews with medical practitioners in Australia and concluded that despite of women in large numbers entering into medicine, there remain significant barriers which restrict the entry of women into formal medical leadership roles.

Sexton et al., (2014) conducted a study to evaluate career inflection points for women who successfully achieved the position of hospital CEO in America using qualitative research and their results revealed 25 points of inflection related to education and training, experience, career management, family, networking and mentoring and sponsorship. It was found that there is a significant gap from functional history in career inflection points while executives in clinical and administrative support encountered more inflections. Nonetheless, among all the executives who are completing a graduate degree and gaining experience as a chief operating officer, only two inflections were common. More specifically, the study showed that factors of organizational support are crucial to women's career development.

Han, Kim, Kim, Cho, & Chae, (2018) conducted a qualitative study aimed at understanding the social and cultural factors influencing gender disparity on the career path of South Korean female doctors working in academic medicine and found that junior female doctors were more susceptible to gender discrimination and channelled through seniority-based, patriarchal, collectivist and business hospitals to ghettos and concluded that cultural and social practise patterns are constantly and indirectly recreating processes in South Korea to sustain gender disparity in academic medicine.

Altieri et al., (2018) performed study in New York to assess the prevalence of gender inequalities in case volumes across surgical specialties and observed that the number of female top performing surgeons remained disproportionately low relative to male top performing surgeons, although some sub-specialties such as bariatric and breast surgery saw some rise in female top performers while the majority remained male dominated- fields during the fifteen year period. It is also found that during the study era from 2000 to 2014, there were no female surgeons among the best performers in vascular, orthopaedics, cardiac and urology from the New York SPARCS database reporting that there is a gender gap in surgeon case volumes.

Spencer et al., (2016) conducted a quantitative research on gender disparities in pay and work satisfaction in urology relative to men and found that after correcting for many variables likely to lead to compensation, female urologists are significantly less paid compared to male urologists while there is no gap between male and female urologists in work satisfaction.

Perera, Bistritz, & Beaton, (2019) conducted a survey to recognise equity and gender problems among members of the Canadian Association of Gastroenterology (CAG) and

found that for many CAG members, work-life balance, physician well-being, negotiating skills and mentorship are areas of significance. Significantly more women, however, believed that their age, race, gender, marital status impeded career development, reflecting gender and equality issues in gastroenterology.

Bharucha, (2015) conducted an exploratory study on Gender and Indian Hospital Leadership using a literature review and concluded by developing five main themes namely Gender and leadership, factors contributing to gender bias , future female leadership, solutions adapted to resolve gender bias and last theme was gender and hospital industry.

Chopra et al., (2018) conducted an online survey study to address the workforce challenges of reducing gender disparity among oncologists in India and revealed that there is a shortage of women oncologists in India reporting leaky pipeline in medicine. The study found that most women oncologists viewed domestic responsibilities as the main barrier to professional performance and a strong anti-discrimination policy at the workplace program will help improve their career development. The study concluded with recommendations citing the need for organised policies to foster gender equality and reduce unconscious bias from childhood days regarding the view of women to overcome gender disparity.

Lavanya & Rajashankari, (2016) revealed in their study that although women's roles have hardly changed substantially in recent years, they still remain underrepresented in a male-dominated society, especially missing top corporate hierarchical positions.

Dhariwal, (2020) conducted study to examine the factors that lead to Glass Ceiling in the banking sector with particular reference to the region of Chennai using a random sampling approach by collecting responses from women employees employed in various public, private and foreign banks in the region of Chennai and showed that organisational, social and personal barriers have a major impact on the Glass Ceiling and concluded that only 5.5 percent of women employees could reach the top level.

Nurul et al., (2016) investigated the impact of the perception of the glass ceiling on the turnover intention of female IT staff in Malaysia and proposed a conceptual model to identify the relationship between glass ceiling and turnover intention by defining the mediating factors such as job satisfaction and organizational engagement that are supposed to mediate the relationship between the perception of the glass ceiling and turnover intention.

Yadav & Khanna, (2014) conducted a secondary study to highlight the presence of glass ceiling in India and evaluate the role of women in finance, politics, education and corporate and found that in India women are breaking the glass ceiling but there are several sectors in which glass ceiling is present.

Research Gap

1. By reviewing the literature from different sources it is found most of the studies have been done in foreign countries whereas only few studies in India.
2. There are limited studies with regard to glass ceiling effect to female doctors in particular.
3. Despite their significant numbers, health sector have been of little concern to researchers
4. Scarcity of information on Glass ceiling effect in Indian health care sector was evident during this review.
5. To date, no studies have been undertaken in the Dakshina Kannada District to directly examine the issues linked to female doctors' career progression in various specialisation areas.

Statement of the Research Problem

Women have always played a significant part in medicine and healing from ancient times to the present. They are notably underrepresented in official leadership roles and specialised fields in spite of the majority of medical students being female. Despite the fact that women make up the majority of healthcare workers, they frequently face obstacles to career advancement and are still notably underrepresented in senior academic and hospital leadership positions in many healthcare institutions. Many members of the healthcare network emphasised that although women make up the majority of employees in the industry, men typically hold prominent positions. There are still some medical disciplines, like academia and surgery where it is challenging to advance in a top-level career. This suggests that there aren't enough female role models at the top, which is a problem that has to be thoroughly investigated in order to find the root cause(s) and perhaps fix them.

Research Questions

The key questions that the researcher attempts to get an answer are as follows:

- What level of awareness do female doctors have towards the concept of Glass Ceiling?

- To what extent glass ceiling exist in healthcare sector?
- What are the barriers contributing to glass ceiling in healthcare sector?
- What is the impact of Glass Ceiling on the career advancement of female doctors?
- What are the measures to be undertaken to overcome the barriers that restrict the growth of female doctors?

Objectives of the Study

The research is done with the following objectives:

1. To study the level of awareness female doctors have towards glass ceiling.
2. To investigate the magnitude of glass ceiling in healthcare sector.
3. To identify the barriers contributing to Glass Ceiling.
4. To examine the impact of glass ceiling on the career progression of female doctors.
5. To explore the measures to overcome the barriers which restrict the growth of female doctors.

Hypotheses of the Study

The following research hypotheses have been formulated based on the literature reviewed from previous research studies pertaining to the current field of investigation. The research took into account two factors, Barriers and Glass ceiling as the first factor and Glass ceiling and career advancement of female doctors as the second factor. Here, the researcher needed to know the barriers contributing to Glass ceiling and its relationship. i.e, if there is a correlation between the glass ceiling and the career advancement of female doctors and whether Glass ceiling impacts the career advancement of female doctors. The previous studies revealed that there exist a moderate negative relationship between Glass ceiling and women career development and concluded that Individual, Organisational, and Cultural factors significantly affect women's career advancement. Bombuwela (2013). Women face major obstacles and a glass ceiling. Carla Wiggins (1995). Women's access to senior executive roles is influenced by a variety of factors, including education, skills, support, impediments, and business culture. Carole, (1994). Thus with this background, the following hypotheses are framed.

Hypothesis 1

H0: There is no significant relationship between Glass Ceiling and Career progress of female doctors.

H1: There is a significant relationship between Glass Ceiling and Career progress of female doctors.

Hypothesis 2

H0: Barriers do not contribute to Glass ceiling.

H1: Barriers contribute to Glass ceiling.

H1 a) Individual barriers significantly contribute to Glass ceiling.

b) Organisational barriers significantly contribute to Glass ceiling.

c) Societal barriers significantly contribute to Glass ceiling.

d) Government barriers significantly contribute to Glass ceiling.

Significance of the study

The results of this study will be of great benefit to the following:

1. **Society:** The research will help to create awareness to the society regarding various barriers that prevent large number of women and ethnic minorities from obtaining and securing the most powerful, prestigious and highest-grossing jobs in the workforce. This study can also significantly contribute in bringing a change in the stereotyped mentality of the society towards women.
2. **Healthcare Sectors:** The study creates awareness to healthcare organisations about the various problems and issues with respect to women in healthcare system and makes them to undertake remedial actions to eliminate gender discrimination. The study will help the healthcare organisations to explore the strategies to break the glass ceiling in their respective hospitals of Dakshina Kannada District. The feedback of the female doctors will help the decision makers of the respective organisations to enhance and empower the female doctors in medical disciplines, specifically in selected taluks like Mangalore, Bantwal, Puttur, Sullia and Moodubidre of Dakshina Kannada District.

3. **Female Doctors:** The study builds confidence amongst female doctors to shatter the glass ceiling. It motivates them to identify the type of problems they are facing and the strategies to overcome them. It also empowers women to secure senior medical positions.
4. **Women:** The study helps women in identifying the barriers restricting their career growth and helps them to come up with effective measures to breakthrough and move ahead in their career.
5. **Researchers:** The study will open the researcher's view to critical areas in the healthcare sector that most of them miss to cover. It offers the facts needed for future researchers to compare their study during their research. Further, it will serve as a theoretical model for studies of similar nature and can be used as a basis for future plans of action.

The importance of the study is that, it provides empirically proven, indispensable facts about the existence of glass ceiling in healthcare sector with respect to different private hospitals of Dakshina Kannada District. The study tries to explore the undisclosed barriers which are considered as major hurdles for the career growth of women doctors. It also contributes towards the academic and intellectual enrichment. The study can be added to the existing literature as there are limited resources with respect to glass ceiling in healthcare sector.

Need and Scope of the study:

The study helps to understand and address the ongoing problems of female doctors by creating awareness of the contributions made by women to medicine. The study removes the myth that it is not possible for women to put in as much as men. The study helps to improve the status of women in healthcare sector by critically analysing various issues and their solutions.

The present study is confined to female doctors of different streams in five taluks of Dakshina Kannada District as adequate number of multi-specialty hospitals is located in this district. In addition, the district's prowess as a medical hub and having a significantly high inflow of patients from other districts and states makes it the best candidate for the geographical area of this study. The study is carried out to assess the impact of glass ceiling on the career growth of female doctors in healthcare sector. It focuses on identifying the factors preventing the female doctors from reaching top-level positions in healthcare sector.

Research Methodology

Type of research study

The research method is empirical in nature with the main objective to study the existence of Glass Ceiling in Healthcare sector and its impact on the career progress of female doctors.

Geographical area of the study

The area of the study selected is Dakshina Kannada District. The District consists of seven Taluks namely Mangaluru, Bantwal, Puttur, Moodubidri Belthangady, Sulia and Kadaba out of which five taluks have been considered for study. The study is confined to 20 private hospitals of five selected taluks namely Mangaluru, Bantwal, Puttur, Moodubidri and Sullia taluk of Dakshina Kannada District to assess the career progress of female doctors in Healthcare sector. These hospitals are selected based on the highest number of beds, popularity and quality of service. Majority of the hospitals are selected from Mangalore Taluk and the remaining hospitals from the other four taluks consisting of 4 hospitals from Puttur, 4 hospitals from Moodubidri, 2 from Bantwal and 1 from Sulllia.

Sample

The total population for the study is 373 registered female doctors from different Taluks in Dakshina Kannada District. Indian Medical Association (IMA) has been approached by the researcher to collect this data. Stratified sampling technique is used in this research. The sample size was restricted to 205 female doctors from different specializations like Optholmology, Cardiology, Gynaecology, Dermatology, General medicine, Neurology, Dental, ENT etc.

Sample size determination

The sample size was determined by using the following formula:

N/(1+Ne^2)

Where N = 373 and e = 0.05

373/(1+373x0.05x0.05) = 193.014

The total sample size for the study is 205, which is a round off number of the size determined by applying the appropriate formula.

Sampling Technique

The sample of the study is selected by using Stratified sampling technique were in samples were included from five Taluks of total population area.

Sources of data

The research was carried out with the help of both primary and secondary data. The primary data was collected through a structured questionnaire consisting of both optional and descriptive type questions and interview method to elicit the opinions of the female doctors. This research study is relied upon the survey method for collection of data. A self-administered questionnaire was developed as the survey instrument. The questionnaire was developed in accordance with the objectives to be met at the end of the research through extensive literature review.

The questionnaire consists of two parts namely part A and part B. Part A is the personal profile of the respondents with respect to age, educational qualification, department, designation, marital status and work experience. Part B consists of 80 questions including open ended, closed ended questions with respect to barriers contributing to Glass Ceiling, impact of Glass Ceiling on the career progress of female doctors and measures to be undertaken by the healthcare sector and female doctors at the individual level to break the Glass Ceiling in the form of five point scale ranging from strongly agree to strongly disagree.

Secondary data from published sources like journals, newspapers, books, reports and internet was used. For links to academic journals, search engines such as Google Scholar, Proquest, Science Direct, Research Gate, J-store, Pubmed and Ebsco databases were used. For the content, a total of 70 papers were collected and evaluated. These 80 papers were divided on the basis of numerous industries, including the education sector, the IT sector, the corporate sector, the banking sector and the service sector and out of which, only 20 studies were focusing on gender-related discrepancies in healthcare sector relating to leadership and career advancement. Articles published from 1983 to 2022 were retrieved.

A pilot study was conducted by the researcher to examine the validity and reliability of the research instrument. A pilot survey is a preliminary research conducted before a complete survey to test the efficiency of the research methodology. The researcher conducted the pilot study with 34 conveniently selected respondents from 3 private hospitals.

Analysis Tool and Statistical tools used for the study

Collected data was analysed using descriptive and inferential statistical methods. Descriptive methods such as frequency and percentages were obtained to summarise categorical data and mean and standard deviation were calculated to summarise rating scale data. Inferential analysis like Chi-square test and Fisher's exact test were performed to find the association between the categorical parameters. Karl Pearson's correlation co-efficient and multiple regression analysis were performed to ascertain the relationships and impact of various independent variables on dependent variable. Further, Factor analysis was performed to find out the important domains and finally Structural Equation Modelling technique was adopted to test the conceptual model. Analysis was performed using SPSS 23 and AMOS software. Level of significance in the present study is 5%.

Test of Reliability of data:

Cronbach Alpha:

Cronbach's Alpha reliability coefficient is used to find out how reliable are the data collected using Likert's Five Point Scale. The reliability coefficient ranges from 0 to 1. Original questionnaire was administered to 34 respondents, representing the pilot study to test the reliability of the items in the questionnaire under various Independent variables. Cronbach's Alpha reliability coefficient is calculated for all the responses rendered in Likert's scale under various categories in the questionnaire. The Cronbach's Alpha reliability coefficient value for the respondents (n=34) has been calculated and it is seen that the alpha reliability coefficient is greater than or equal to 0.9 and there by positively attesting to the reliability and validity of the questionnaire. Hence, it is concluded that the degree of reliability of the questionnaire is excellent.

Findings of the study

Based on the analysis and interpretation, the main findings pertaining to the present study are summarised as:

- From the analysis of the demographic profile the study revealed that majority (77.1%) of the female doctors belong to the age group of 25-35 years, 45.4 % of the respondents are

MD holders, 56.6 % of the respondents are married, 32% of the respondents receive salary below Rs 1,00,001 – 1,50,000, 38.5% of the respondents are Senior Residents, 62.4% of the respondents belong to clinical group and 64.4% of the respondents have below 5 years of service.

- 46.8% of the female doctors agree that sex segregation is a stable factor in women's career. This makes it apparent that the existence of the stereotype which suggest that male doctors are more capable and hence must be preferred over female doctors. This clearly shows that there is sex segregation within the healthcare sector where the respective female doctors' profiles are not considered for certain positions.
- 77.6% of the female doctors opined that male and female doctors are treated equally and 80.0% stated yes with respect to female doctors being represented equally in leadership positions. It is clear that there has been a significant decrease in the discrimination between male and female doctors within the healthcare sector in comparison to yester years. Nevertheless, the organizational target should be to achieve 100% in fair treatment of their employees and providing equal growth opportunities to their doctors.
- 60.5% of the respondents opined no with respect to not holding a leadership position in their hospital. It indicates that males are preferred more for leadership positions than women.
- 32.2% of the female doctors neither agree nor disagree with respect to Healthcare sector is still a male dominated field whereas 27.8% female respondents agree to it.
- 50.2% female doctors agree that Healthcare industry as a hospitable environment which is also one of the reason why many women choose medical field when compared to men.
- The study revealed that majority (50.2%) of the respondents are partially aware of the concept of Glass ceiling. Therefore, the healthcare system must take the lead in raising awareness among female doctors about the obstacles and challenges they face in their careers through seminars, workshops, personality development programmes, and other means that will enable them to identify the barriers and overcome them that are impeding their advancement.
- The magnitude of Glass Ceiling was tested and the study revealed that 47 percent have experienced Glass Ceiling from low to high. This shows that there exists glass ceiling but comparing to yester years there has been an improvement in the awareness of glass ceiling as a barrier to career growth among the female doctors.

- From the analysis it is clear that majority (69.8%) of the respondents consider family commitment followed by working hours as the reasons for delay in promoting female doctors.
- It is clear from the analysis that most number of women doctors are employed in Gynaecology department where as the least number of women doctors employed in orthopaedics department as it requires stamina to undertake the task and on duty requirement by the female doctors which is not possible if they are committed to family responsibilities.
- It is revealed from the analysis that majority (82.4%) of the respondents are of the opinion that Glass Ceiling is breakable depending upon the capability of the women and her skills.
- The study revealed that the perception of female doctors towards glass ceiling is good with mean 2.94 and standard deviation 0.90 respectively.
- It is clear from the study that 47.3% of the respondents opined individual barriers as the most restricting type of barrier affecting their career growth as women play different role in managing both professional and personal life. This shows that even if the female doctors upskill themselves to make them capable for the leadership position, a good volume of such doctors intentionally choose to put family commitments above career growth. In this regard, how much ever the organization tries to have measures to make it inclusive and merit-based, they cannot overpower the intentional choice taken by the respective female doctor. Hence it is identified that, even though the glass ceiling is breakable in an ideal situation; the respective female doctor must choose to break it by balancing career and family accordingly or by putting career above family commitments.
  However, statistically it is proven that among the various barriers organisational barriers significantly contribute more to glass ceiling followed by Individual, Societal and Government barriers.
- The study revealed that there is a significant positive correlation between Individual barriers and Glass ceiling with r = 0.195, P= 0.005 that is more the individual barriers more the extent of Glass Ceiling. So the hypothesis H1: Individual barriers significantly contribute to Glass ceiling is accepted. However, since r value is low (< 0.4) it shows that individual barriers moderately contribute to Glass Ceiling. And it is also found that among the ten components of Individual barriers three components contribute more to Glass ceiling with R^2 = 0.095%. Components are “Lack of self confidence” with β =

0.211, “Lack of ambition” with β = -0.163 and “Difficult to manage both personal and professional life” with β = 0.237.

- The study revealed that there is significant positive correlation between organisational barriers and Glass ceiling with r = 0.784 P = 0.000 that is more the organisational barriers more the extent of Glass Ceiling. So the hypothesis H2: Organisational barriers significantly contribute to Glass ceiling is accepted. However, since r value is high (> 0.4) it shows that organisational barriers highly contribute to Glass Ceiling. And it is also found that among the seventeen components of Organisational barriers nine components contribute more to Glass ceiling with R^2 = 0.670 %. Components are “Effort is not recognised by the organisation” with β = 0.114, “No scope for career development” with β = 0.176, “No performance appraisal” with beta = -0.170, “Women are viewed as less desirable management candidates than men” with beta = 0.238, “Male domination” with β = 0.177, “Women encounter discrimination in the professional roles offered by the organisation” with β = 0.160, “Lack of mentoring” with β = 0.295, “Lack of management training” with β = -0.206 and “Mommy tract affects the ability of women” with β = 0.188.
- The study revealed that there is a significant positive correlation between Societal barriers and Glass ceiling with r = 0.570, P= 0.000 that is more the Societal barriers more the extent of Glass Ceiling. So the hypothesis H3: Societal barriers significantly contribute to Glass ceiling is accepted. However, since r value is high (>0.4) shows that Societal barriers highly contribute to Glass Ceiling. And it is also found that all the five components of societal barriers significantly contribute to Glass Ceiling with R^2 = 0.333%. Components are societal belief that women are not committed to their careers as men with β = 0.120, men have significantly higher probability for all leadership positions with β = 0.049, primary importance to family and secondary to job with β = 0.043, stereotyped mentality of the people with β = 0.158 and societal compulsions with β = 0.311.
- The study revealed that that there is a significant positive correlation between Governmental barriers and Glass ceiling with r = 0.240, P= 0.001 that is more the Governmental barriers more the extent of Glass Ceiling. So the hypothesis H1: Governmental barriers significantly contribute to Glass ceiling is accepted. However, since r value is low (<0.4) shows that Governmental barriers moderately contribute to Glass Ceiling. And it is also found that among the six components two components contribute more to Glass ceiling with R^2 = 0.062 %. Components are “Lack of

employment opportunities for women in healthcare sector" with β = 0.176 and "Lack of vigorous, consistent, monitoring related to glass ceiling" with β = 0.145.

- The majority (78%) of the respondents opined that being a woman is not a hindrance to their career advancement.
- It was found from the study that there is a significant positive correlation between Glass ceiling and Career progress of female doctors with r = 0.698, P= 0.000. So the Hypothesis: There is a significant relationship between Glass Ceiling and Career progress of female doctors is accepted. However, here r value is high (>0.4) it shows that Glass ceiling has high impact on the career progress of female doctors.
- Majority of the respondents strongly agree with respect to the measures undertaken by the healthcare sector to break the Glass Ceiling with mean 4.17 and standard deviation 0.65 respectively. The total of 8 measures is reduced to 2 factors which contribute for 75.534% derived as a result of factor analysis with variation 42.68% and 32.84% respectively. Factors with respective statements are Factor 1- Consists of 5 statements. They are: 'Creation of mentoring programmes within organisation' with factor loadings 0.618, 'To develop critical leadership skills for women' with factor loadings 0.738, 'Drafting strategies to address the shortage of women in boardrooms and senior positions' with factor loadings 0.832, 'Designing an employment system that provides equal opportunity to women' with factor loadings 0.849 and 'Increase women leadership in the healthcare organization' with factor loading 0.874. Factor 2 consists of 3 statements. They are: 'Establish flexible work arrangements' with factor loadings 0.914, 'Work life balance policies' with factor loadings 0.910, 'Should create effective pipeline to identify, develop and promote women' with factor loadings 0.627. The analysis showed that Factor 1 consists of information regarding more towards the skill enhancement of women doctors. So Factor 1 can be named as 'Organisational policy improvements' and Factor 2 cater more towards desirable work atmosphere in which the women doctors can thrive in their skills and career goals. Hence, the second factor is named as 'Desirable work atmosphere.'
- Majority of the respondents strongly agree with respect to the measures undertaken by the female doctors at the individual level to break the Glass Ceiling with mean 4.34 and standard deviation 0.64 respectively. The total of 7 measures is reduced to 1 factor which contributes for 73.337% derived as a result of factor analysis with variation 73.337%. Factors with respective statements are Factor 1- Consists of 7 statements. They are 'Creating one's own identity' with factor loadings 0.905, 'Building network' with factor

loadings 0.823, 'Analysing oneself' with factor loadings 0.910, 'Setting objectives to align one's competencies with the top management' with factor loadings 0.862, 'To develop decision making skills' with factor loadings 0.836, 'To push forward by accepting challenges' with factor loadings 0.850, 'Compete based on ability and merit' with factor loadings 0.803**.** The analysis showed that Factor 1 consists of information regarding empowerment of women doctors. Hence, the first factor is named as 'Personal Upskilling'**.** This indicates that there exists Glass ceiling. Hence, it is vital for both the healthcare sector and female doctors to bring out the strategies to break it.

Recommendations

On the basis of findings of the study and the interaction with the female doctors, following suggestions are offered.

1. Since majority of the respondents are partially aware of the Glass Ceiling concept there is a requirement to create an awareness among the female doctors through various personality development programmes, seminars, workshops in identifying what barriers are restricting them from achieving their career growth and what strategies could be undertaken to break the Glass ceiling individually.
2. Therefore based on the above finding, the researcher suggests the applicable healthcare organizations to have a monitoring panel whose primary responsibility would be to observe whether sex segregation is counted in the screening process installed for identifying candidates for top leadership positions. If the panel identifies prejudice being shown based on sex, then they should have full discretion to intervene in the decision making process. Also, as part of the organization's HR process, an open forum should be put in place where periodic discussions should be conducted with this monitoring panel in which the employees should be able to put forth any genuine grievance or concern that they come across in their work.
3. Also, the researcher suggests the organization to have an alternate channel, especially an Online Grievance Reporting tool which can be used by the doctors to report their grievances anonymously. The anonymity in reporting will also encourage the doctors to boldly report their concerns without having the fear of facing any unethical consequences.
4. The researcher recommends to the HR head of the organization to undertake an Employee Engagement Survey (EES) annually or half-yearly depending on the exit ratio

of the doctors. Every organization's improvement or growth is directly proportionate to the job satisfaction of its employees. Healthcare sector is not an exception to this fact. Hence it is very vital for every Healthcare organization to know and understand where it stands when it comes to the satisfaction of its employees. This survey must be done anonymously on a regular basis.

5. Once the results of the survey are formulated, Action plan must be put in place and an execution team including doctors must be given responsibility to execute the plan in the organization. This can lead to significant increase in Job satisfaction, employee retention, employee trust towards the organization, employee productivity, etc. which eventually leads to the growth of the organization.

Implications of the study

The results of the study may help the female doctors to create an awareness amongst the budding female doctors who have started their profession to know the problems of female doctors in their career growth and be prepared to handle the situations effectively by working in teams to bring about positive changes in the healthcare sector. It helps them to identify the barriers that are restricting them from achieving their career aspirations. The findings of the study will help the selected private hospitals to come up with the strategies to shatter glass ceiling in their organization.

The thesis could contribute to the current body of knowledge and also to the development of a new body of knowledge and enrich the sources of literature for future research that will support academics. The outcomes of the report would improve the organization and come up with the recommendations to make the healthcare system more competitive. The study can offer guidance in the planning and formulation of career development policies for healthcare organizations. It can help the policy makers to improve the promotion system in the organization and also allow the decision-makers to increase the opportunities for women doctors to attain high positions in their organization. The study will bring about a positive change in the perception of the healthcare sector against women reaching higher positions in the institution.

Conclusion

The current research aimed to identify the existence of Glass ceiling in healthcare sector and its impact on the career progress of female doctors focussing on the factors contributing to

glass ceiling and its association. The result showed that there are various barriers which contribute to glass ceiling are Individual barriers, Organisational barriers, Societal barriers and Government barriers. The result indicates the significant impact of glass ceiling on the career progress of female doctors by analysing the various factors contributing to it and ultimately confirmed that there exists positive relationship between all types of aforementioned barriers and Glass ceiling. And among these factors Organisational barriers are the most important factors contributing to glass ceiling followed by societal, individual and governmental barriers.

The study highlights that there is a positive correlation between the Glass Ceiling and career progress of female doctors stating the existence of a glass ceiling that ranges from low to high has a substantial impact on career progression. Hence it is imperative for healthcare sector to rollout certain initiatives towards breaking this invisible barrier.

Additionally, it is intended that the research findings and recommendations will throw light on recent developments in the medical industry, which are crucial in a rising nation like India. This study not only adds to the continuing discussion about Glass Ceiling difficulties, but it also identifies some intriguing directions for further investigation. There is undoubtedly need for more research on this topic as there were very limited resources on Glass ceiling with respect to Healthcare sector. Therefore, there is a large scope and need for further research on this topic. Further, studies could be undertaken focusing on specific specialties like Surgery, Medical academia, Orthopedics, Cardiology, Gastroenterology, etc. where women doctors are scarcely present and largely under-represented in leadership positions. Also, the future researchers could select metropolitan cities as geographical area for their studies where the number of private hospitals are more and are in close proximity with each other. In our country, since people trust private hospitals for better service and care, further research could be carried out specifically on the organizational barriers that are identified in this study to be contributing to a high extent towards Glass ceiling. Moreover, it is recommended to conduct research on a larger sample size to arrive at more precise findings on the proportion of different barriers contributing to Glass ceiling. The conceptual model created in this study can be revisited in subsequent research with a bigger region and a greater sample number of respondents, allowing the results to be more broadly applied. But given the limitations of the present study, more research is required on the various outcome indicators and their ability to locate the underlying cause.

Women entering into medical field are increasing year after year. Their career journey starts with a lot of hope but it halts at a certain point for most women doctors due to glass ceiling.

Though some women doctors secure leadership positions here and there, the sad truth is that they are kept from attaining their career growth in most healthcare organisations in spite of their competence, merit, skill and experience. It is very important to break this glass ceiling in order to create a hope not only in the current generation of women doctors but also in the upcoming generation of women who aspire to be one of the best doctors in their generation.

Limitations of the study:

The following limitations rectified by the researcher can be the avenues for future researchers.

1. The study is confined to the selected private hospitals of five taluks in Dakshina Kannada District only. It excludes coverage of a wider region and only includes respondents from a single particular geographic location. Hence the findings of this study can therefore only be applied to that specific area and cannot be extrapolated to a larger framework.
2. The study area tends to be too sensitive to further examine participants' answers and moreover, some of the hospitals did not permit to conduct the survey.
3. There is lack of Indian literature on Glass Ceiling in healthcare industry in general and lack of prior research on this topic in healthcare sector with respect to female doctors in particular was evident during the study.
4. This study is confined to the perception of female doctors only. This research explored experiences of women doctors only. The possibility of a gender comparison would be to conduct a similar study on male doctors.
5. The research is subject to selection bias, as the study does not involve all female doctors in the Dakshina Kannada District. There are however, no records specifying the exact number of female doctors from various specialties practicing in Dakshina Kannada District. The responses given in the present study are therefore indicative of the individuals who participated and cannot be generally applied to all the female doctors of all specialties in the district of Dakshina Kannada. The acquiring of more data on the role of female doctors and career expectations in the Dakshina Kannada District is therefore critical to further understanding of this issue.
6. It was also evident from the survey that in majority of the private hospitals there were only few female doctors as duty doctors who just come and attend the patient when they are notified of a case.

7. There were certain hurdles to conduct the survey as it has to be formally approved by the Institutional Human Ethical Committee of the respective healthcare organization which involved a long time to process.

Future Scope

This research study is an attempt to identify the existence of Glass Ceiling in Healthcare Sector and its impact on the career progress of female doctors in Dakshina Kannada District. The study area offers more scope for future research such as:

There is certainly a need for more research in this area particularly in healthcare sector that could focus on contributing to the career advancement of female doctors by eliminating the growth barriers in their career ladder using proven strategies that are based solely on empirical studies like this. Additional work is required to address the other problems posed in the report, such as the gender wage gap where more study efforts are needed to measure and characterise the variables associated with pay inequalities and to understand their root causes. The present research is confined to Indian hospitals only. Nevertheless, there is an ample scope for the inclusion of foreign hospitals as well. The area of the study was restricted to only 20 well-known private hospitals from different taluks in Dakshina Kannada District namely Mangaluru, Bantwal, Moodubidri, Sullia and Puttur. Upcoming researchers can further broaden the scope of the study by expanding the sample size and geographical boundary. More research is further required to investigate the other aspects raised in the study like gender pay-gap, equal distribution of opportunities, etc. Further stand-alone studies on gender-specific disparities should be undertaken to eliminate if not, minimise the gender discrimination seen in various fields of specialization, such as surgery, cardiology, neurology, urology, orthopaedics, etc. Future researchers have to undertake further studies on developing new approaches and paradigms that contributes towards the career progress of female doctors. To determine the career development of male and female physicians, a comparative study can be performed between government and private hospitals, International and Indian hospitals. For future research the view of male doctors to the glass ceiling for female doctors may be considered. Since there is a deficiency of Indian literature on glass ceiling in hospital industry, the study recommends the future researchers to undertake studies on gender and leadership with respect to Indian hospital industry. This research can further be extended to explore other dimensions of the problem by carrying out studies on unchartered areas in healthcare sector.

Scheme of Chapterisation

The research study has been presented in 5 chapters. The chapter wise introduction of each chapter is as follows:

Chapter 1: Chapter one includes the introduction of the topic, significance of the study, need and scope of the study, Statement of the problem, research questions, objectives of the study and research methodology.

Chapter 2: Chapter two contains detailed review of literature in the area of research. The chapter also explains the gaps identified in the literature.

Chapter 3: Conceptual framework of the study.

Chapter 4: Chapter four is designed to explain the data analysis procedures in detail.

Chapter 5: Chapter five presents detailed report of the major findings and recommendations on the basis of the results of the study. This chapter is the core of the whole study and ends with the scope for further research and limitations of the study.

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Ponnuswamy, I. (2014). Breaking the Glass Ceiling- A Mixed Methods Study using Watkins and Marsick's Learning Organisation Culture Model. *aw*, *30*(3), 85. doi:10.14431/aw.2014.09.30.3.

Papers published (Research related)

1. R. Prathibha & K. Puttanna (2020). Glass Ceiling in Healthcare Sector. In *Business Trends- Issues and Implications* (pp. 158–162). Excel India Publishers.

2. R. Prathibha. (2021). Breaching the Glass Ceiling in Indian Hotel Industry. *JIJNASA : A Journal of the History of Ideas and Culture*, *XXXVIII*, 108–114.

3. R. Prathibha, & K. Puttanna (2022). Breaking the Glass Ceiling in Education Sector. *International Journal of Science and Management Science*, *5*(5), 148–152. https://doi.org/10.51386/25815946/ijsms-v5i5p113

Other Publications

1. R. Prathibha, & K. Puttanna (2020). Managing Cross Cultural Generation Through Reverse Mentoring. In *Managing Human Resource in Cross - Cultural Organisations* (July 2020, pp. 62–69). K.G. Publications.

Papers presented (Research related)

1. Presented a paper entitled: Impact of Glass Ceiling: A study in Healthcare Sector in the 3rd International Conference cum workshop on "Multidisciplinary Business Research – The New Driver of Business Innovation" held at AIMIT , Beeri on 31st March 2017

2. Presented a paper entitled: Shattering Glass Ceiling in Healthcare Sector in the "International Conference on Emerging Trends in Management, Information Technology and Education" held on 16th and 17th August, 2019 organised by Srinivas University college of Management and Commerce.

3. Presented a paper entitled: Cracking the Glass Ceiling in Indian Hotel Industry in the Two- Day International Seminar on Tourism and Sustainable Development – Issues, Challenges and Best Practices organized by the Department of MBA (Tourism and Travel Management) ICSSR sponsored held on 27th& 28th December, 2019.

4. Presented a paper entitled: Glass Ceiling: Challenges and Opportunities in Healthcare Sector in the two-day National Conference on Emerging Business Trends (EBT) on 4th and 5th March 2020 organized by the Department of Studies in Commerce, Mangalore University, Mangalagangothri.

5. Presented a paper entitled: An Empirical Analysis on the Factors contributing to Glass Ceiling in Healthcare Sector at the National Conference on 'Business Resurgence in Post Pandemic Era – Pathway Ahead' organized by SDM PG Centre for Management Studies & Research Mangalore on 15th July, 2022.

Papers presented (General Papers)

1. Presented a paper entitled: Green HRM in the National Level Conference on "Emerging Issues in Management and Tourism" organised by Department of Business Administration and MBA (Tourism Administration), in association with the 'Association of British Scholars', Mangalore Chapter on 2nd and 3rdJanuary 2016.

2. Presented a paper entitled: Corporate Social Responsibility as a Strategy to Uphold Gender Equality in the Two-day National Level Conference on "Consolidating Social Enterprises through Corporate Social Responsibility Initiatives: Issues and Challenges" organised by AJ Institute of Management (AJIM), KottaraChowki, Mangaluru on 14th and 15thDecember, 2018.

3. Presented a paper entitled: Leadership 4.0 : A Move Towards Leadership for a New Generation in the Two-day National Level Conference on"Contemporary Innovations in Industry and Commerce" organised by Department of Post Graduate Studies and Research in Commerce, Mangalore University

Workshops attended

1. Attended workshop on "Multivariate Data Analysis" organised by St. Aloysius Institute of Management and Information Technology (AIMIT) Beeri, Mangalore on September 2, 2016.
2. Attended workshop on Structural Equation Modeling organised by St. Aloysius Institute of Management and Information Technology (AIMIT) Beeri, Mangalore on 31st March 2017
3. Attended Three Day State level Workshop on Data Analysis in Social Sciences organised by P.G. Department of Commerce, St.Stephen's College, Uzhavoor, Kottayam on 28th to 30th June 2018
4. Participated in the 'ICSSR' Sponsored Ten-day Research Methodology Course for Mphil/Ph.D/PDF Scholars in Social Sciences from 8th to 17th April 2019 organised by the Department of Post-Graduate Studies and Research in Commerce, Mangalore University, Mangalagangothri.
5. Participated in the one day International workshop on Research, Writing and Publishing in Reputed Journals on 27th July, 2019 organized by the Centre of Excellence for Research Innovation & Entrepreneurship in association with Indian Society of Technical Education Pace Chapter under the aegis of Department of Mechanical Engineering, PA College of Engineering, Mangalore.
6. Attended the 'Art of Thesis Writing' workshop conducted by Rehoboth Academic Services at Rosario College of Management Studies, Mangalore on August 3, 2019.
7. Participated in the 3 days International workshop on Research, Writing and Publishing in Reputed Journals on 7th, 8th& 9th August, 2019 organized by the Centre of Excellence for Research Innovation & Entrepreneurship in association with Indian Society of Technical

Education Pace Chapter under the aegis of Department of Mechanical Engineering,PA College of Engineering, Mangalore.

8. Attended the online workshop on Academic Integrity – Dealing with Plagiarism on May 7th 2020 conducted by Rehoboth Academic Services, Bengaluru.
9. Attended an International Webinar on "Art of Writing Research Review/ Articles for publishing in Peer Reviewed Journals" on 25th May 2020 organised by MES College Erumely, Kottayam, Kerala in association with Internal Quality Assurance Cell IQAC.
10. Attended National Webinar on Fine Tuning your research papers: Publication in Scopus, Web of Science Indexed and ABDC rated journals on 27th May 2020 organized by Research and Postgraduate Department of Commerce, Bharatha Mata College, Thrikkakara, Kochi, Kerala.
11. Attended International E – Faculty Development Programme on "Research Indicators, Resources, Plagiarism and Academic Integrity" from 22nd to 26th June 2020 organized by the Knowledge Resource Centre of Patrician College of Arts and Science, Chennai, Tamil Nadu.
12. Attended online webinar on "Managing References in a Research Article using Mendeley organized by Department of Electrical and Electronics Engineering, Vishnu Institute of Technology, Bhimavaram on 26th June 2020.
13. Participated in the two – day webinar on "The Art of Publishing in Indexed Journals" held on 13th and 14th July 2020 organised by JAIN (Deemed-to-be University) Kochi.
14. Participated in the online webinar titled "Open Source Tools for Data Analysis in Social Sciences" on 31st July 2020 organised by Department of Commerce, Manipal Academy of Higher Education, Manipal.
15. Participated in the three – day webinar on "Managing Literature for Scholarly Writing" organized by the Internal Quality Assurance Cell (IQAC) of Mar Athanasius College (Autonomous), Kothamangalam, Kerala from 28 – 30 September 2020
16. Participated in the National Webinar on "Data Analysis using SPSS – An Introduction" organized by the Commerce and Management Association and Internal Quality Assurance Cell on 6th March, 2021.
17. Attended Three – days National Level Faculty Development Programme on Concepts and Development of Research Methodology organised by the Department of Commerce and IQAC, Nehru Memorial College Kurunjibag, Sullia, Dakshina Kannada District from 15/07/21 to 17/07/2021.
18. Attended a Webinar on Research Methodology "Research Design and Application of Research Tools" jointly organized by the Department of Commerce, Commerce Association and Consumer Club, University College, Mangalore on 29/07/2021.